National Aeronautics and
Space Administration

ATTACHMENT J-2
TO
SOLICITATION NNK09280440R

LAUNCH CONTROL SYSTEM

CONSOLE ENCLOSURE ACQUISITION

GOVERNMENT ACCEPTANCE TEST PLAN

AECD # 9118

Console Enclosure Design Verification

As a minimum, the following will be verified. Testing may not be performed in this order.

OE/TM and OE/TM Mini Enclosure – General

1. Verify the console enclosure has an independent base, hood, and desktop.
2. Verify the OE/TM console enclosure provides the ability to interchange panel-mounted equipment and to alter the amount of rack-mount space along the hood.
3. Verify the OE/TM Mini console enclosure provides the ability to interchange panel-mounted equipment and to alter the amount of rack-mount space along the hood.
4. Verify the console enclosure is designed to be freestanding using removable supports and does not require physical securing to the floor or under floor substructure.
5. Verify the console enclosure can stand alone, be attached directly to other console enclosures in a straight line, or be attached using console enclosure wedges.
6. Verify the console enclosure is accessible from both front and rear and designed for placement as close as two inches (5.08 cm) from the wall.
7. Verify the console enclosure height, width, and depth dimensions are in accordance with the specifications described in the solicitation.
8. Verify the console enclosure has no protrusions or obstructions below the desktop that would interfere with or injure the seated user.

OE/TM and OE/TM Mini Enclosure – Materials, Finishes and Colors

1. Verify the console enclosure is finished metal and high quality laminates with no exposed, unfinished wood on any enclosure interior or exterior surface.
2. Verify metals used in construction of the enclosure are non-corrosive or treated to resist corrosion.
3. Verify console enclosure external surfaces are washable, resistant to mild abrasion, and not subject to damage by common liquid spills or common cleaning agents.
4. Verify laminates used in the construction of the console enclosure are high pressure.
5. Verify painted metal surfaces are powder coat or baked enamel, flat sheen.
6. Verify the console enclosure conveys an “executive” appearance.
7. Verify the console enclosure color scheme is in accordance with the specifications described in the solicitation.

OE/TM and OE/TM Mini Enclosure – Displays

1. Verify the OE/TM console enclosure configured as a Type B console accommodates four (4) flat panel displays above the desktop. Display dimensions are in accordance with the specifications described in the solicitation.
2. Verify the OE/TM console enclosure configured as a Type C console accommodates two (2) flat panel displays above the desktop. Display dimensions are in accordance with the specifications described in the solicitation.
3. Verify the OE/TM Mini console enclosure configured as a Type M console accommodates two flat panel displays above the desktop. Display dimensions are in accordance with the specifications described in the solicitation
4. Verify displays are mounted to the enclosure using fixed height, non-rotating (landscape only) monitor arms.
5. Verify the monitor arms provide user adjustable tilt, swivel, and horizontal articulation.
6. Verify when a display is installed, the desktop to display distance is in accordance with the specifications described in the solicitation.
7. Verify monitor arm mounting is by pole, slat board, or other mounting scheme.
8. Verify monitor arm design criteria are in accordance with the specifications described in the solicitation.

OE/TM and OE/TM Mini Enclosure – Base

1. Verify the console enclosure base uses a “bay” concept.
2. Verify the console enclosure provides electromagnetic interference (EMI) attenuation in accordance with the specifications described in the solicitation.
3. Verify exposed holes and penetrations not used for a particular configuration are sealed or plugged for aesthetic purposes and to maintain EMI shielding.
4. Verify the console enclosure base provides ground studs for connection to facility ground.
5. Verify the console enclosure base provides internal cable management and cable distribution between bays without affecting the EMI shielding.
6. Verify the console enclosure base EMI shielded cable penetrations through the desktop and below floor.
7. Verify the console enclosure base provides cabinet ventilation.
8. Verify the console enclosure base uses low noise fans in the rear or ducted through the hood.
9. Verify the console enclosure base has ventilation grids in the front.

10. Verify audible fan/vent noise from base ventilation is in accordance with the specifications described in the solicitation.
11. Verify the console enclosure base has lockable, removable front and rear access panels/doors for equipment access and servicing.
12. Verify the console enclosure base external and internal height and depth dimensions are in accordance with the specifications described in the solicitation.
13. Verify the OE/TM enclosure base consists of three bays.
14. Verify the OE/TM console enclosure base Bays 1 and 3 accommodate two each workstation towers in accordance with the specifications described in the solicitation.
15. Verify the OE/TM console enclosure base Bay 2 provides RETMA standard rack-mount capability in accordance with the specifications described in the solicitation.
16. Verify the OE/TM console enclosure base has front and rear access panels/doors in accordance with the specifications described in the solicitation.
17. Verify the OE/TM console enclosure base Bay widths are in accordance with the specifications described in the solicitation.
18. Verify the OE/TM Mini enclosure base consists of at least one bay.
19. Verify the OE/TM Mini console enclosure base accommodates two each workstation towers in accordance with the specifications described in the solicitation.
20. Verify the OE/TM Mini console enclosure base has front and rear access panels/doors in accordance with the specifications described in the solicitation.
21. Verify the OE/TM Mini console enclosure base Bay width is in accordance with the specifications described in the solicitation.

OE/TM and OE/TM Mini Enclosure – Hood

1. Verify the console enclosure has a hood.
2. Verify the console enclosure hood attaches to the console enclosure base and/or desktop.
3. Verify the console enclosure hood provides a sound barrier.
4. Verify the console enclosure hood provides hidden pathways for cabling to/from the base and desktop.
5. Verify console enclosure hood cable pathways are accessible from the front.
6. Verify console enclosure hood cable pathways extend up from the desktop in accordance with the specifications described in the solicitation.

7. Verify console enclosure hood cable pathway dimensions are in accordance with the specifications described in the solicitation.
8. Verify the console enclosure hood provides 19” RETMA standard rack-mount space in two rack unit (2RU) to fourteen rack unit (14RU) configurations using independently removable RETMA enclosures.
9. Verify console enclosure hood RETMA enclosures accommodate equipment mounted on slides.
10. Verify RETMA enclosures are capable of supporting weight in accordance with the specifications described in the solicitation.
11. Verify the console enclosure hood provides hidden pathways for hood mounted telephones.
12. Verify the console enclosure hood provides for mounting telephone brackets on either side, both inside and outside the hood.
13. Verify the console enclosure hood has removable rear access panels.
14. Verify the console enclosure hood conveys an “executive” appearance without having sharp edges or portraying a “box” facade.
15. Verify the console enclosure hood general dimensions are in accordance with the specifications described in the solicitation.
16. Verify the OE/TM enclosure hood width is in accordance with the specifications described in the solicitation.
17. Verify the OE/TM enclosure hood provides independently removable 19” RETMA standard rack-mount capability in four locations across the hood.
18. Verify the OE/TM enclosure Hood is capable of supporting a distributed load in accordance with the specifications described in the solicitation.
19. Verify the OE/TM Mini enclosure hood width is in accordance with the specifications described in the solicitation.
20. Verify the OE/TM Mini enclosure hood provides independently removable 19” RETMA standard rack-mount capability in two locations across the hood.
21. Verify the OE/TM Mini enclosure hood is capable of supporting a distributed load in accordance with the specifications described in the solicitation.

OE/TM and OE/TM Mini Enclosure – Desktop

1. Verify the console enclosure has a desktop.
2. Verify the console enclosure desktop attaches to the console enclosure base.
3. Verify the console enclosure desktop provides a support mechanism for pole or slat board mounted monitor arms.

4. Verify the console enclosure desktop provides a pathway for cables entering each bay of the base.
5. Verify cable pathway cutouts dimensions are in accordance with the specifications described in the solicitation.
6. Verify console enclosure desktops are constructed so that two or more enclosures can be connected together using a Wedge peripheral.
7. Verify a standalone console enclosure desktop is capable of supporting weight in accordance with the specifications described in the solicitation.
8. Verify the front edge of the console enclosure desktop accommodates dual intercom system headset jacks including cabling.
9. Verify installed headset cabling is in an enclosed pathway from the headset jacks into the rack mount space in the hood.
10. Verify the console enclosure provides external power and network jacks on the desktop.
11. Verify there are no protrusions or obstructions below the desktop that would interfere with or injure the seated user.
12. Verify the console enclosure desktop front edges are rounded in accordance with the specifications described in the solicitation.
13. Verify the console enclosure desktop work surface is of seamless construction.
14. Verify the console enclosure desktop general dimensions are in accordance with the specifications described in the solicitation.
15. Verify the OE/TM enclosure desktop width is in accordance with the specifications described in the solicitation.
16. Verify the OE/TM enclosure desktop accommodates two dual intercom system headset jacks including cabling.
17. Verify OE/TM enclosure headset jacks are located on the left and right edges of the desktop in accordance with the specifications described in the solicitation.
18. Verify the OE/TM enclosure desktop accommodates external network jacks and power outlets for user provided equipment in accordance with the specifications described in the solicitation.
19. Verify the OE/TM enclosure external network jacks and power outlets are located in accordance with the specifications described in the solicitation.
20. Verify the OE/TM Mini enclosure desktop width is in accordance with the specifications described in the solicitation.
21. Verify the OE/TM Mini enclosure desktop accommodates one dual intercom system headset jack including cabling.

22. Verify OE/TM Mini enclosure headset jacks are located on the right edge of the desktop in accordance with the specifications described in the solicitation.
23. Verify the OE/TM-Mini enclosure desktop accommodates two network jacks and power outlets for user provided equipment in accordance with the specifications described in the solicitation.
24. Verify the OE/TM Mini enclosure external network jacks and power outlets are located in accordance with the specifications described in the solicitation.

Wedge Enclosure – General

1. Verify the wedge enclosure consists of a base, desktop, and hood.
2. Verify the wedge enclosure maintains the height and depth profile of OE/TM or OE/TM Mini console enclosure.
3. Verify the wedge enclosure attaches two OE/TM or OE/TM Mini console enclosures together.
4. Verify the wedge enclosure is accessible from both front and rear and designed for placement as close as two inches (5.08 cm) from the wall.
5. Verify the wedge enclosure has no protrusions or obstructions below the desktop that would interfere with or injure the seated user.

Wedge Enclosure – Materials, Finishes and Colors

1. Verify the wedge enclosure is finished metal and high quality laminates with no exposed, unfinished wood on any enclosure interior or exterior surface.
2. Verify metals used in construction of the enclosure are non-corrosive or treated to resist corrosion.
3. Verify wedge enclosure external surfaces are washable, resistant to mild abrasion, and not subject to damage by common liquid spills or common cleaning agents.
4. Verify laminates used in the construction of the enclosure are high pressure.
5. Verify painted metal surfaces are powder coat or baked enamel, flat sheen.
6. Verify the wedge enclosure conveys an “executive” appearance.
7. Verify the wedge enclosure color scheme is in accordance with the specifications described in the solicitation.

Angled Wedge Enclosure

1. Verify the wedge enclosure hood accommodates two standard telephone brackets with cable penetration.
2. Verify Angle Wedge enclosure height, width, and depth dimensions are in accordance with the specifications described in the solicitation.

Straight Wedge Enclosure

1. Verify the Straight Wedge enclosure base consists of at least one bay.
2. Verify a Straight Wedge enclosure ≥ 12 inches (30.48 cm) wide supports an adjustable bookcase shelf.
3. Verify a Straight Wedge enclosure ≥ 12 inches (30.48 cm) wide supports up to four telephone brackets.
4. Verify a Straight Wedge enclosure < 12 inches (30.48 cm) wide supports up to two telephone brackets.
5. Verify Straight Wedge enclosure general dimensions are in accordance with the specifications described in the solicitation.

Extended Wedge Enclosure

1. Verify the Extended Wedge enclosure base consists of at least one bay.
2. Verify an Extended Wedge enclosure ≥ 12 inches (30.48 cm) wide supports an adjustable bookcase shelf.
3. Verify an Extended Wedge enclosure ≥ 12 inches (30.48 cm) wide supports up to four telephone brackets.
4. Verify an Extended Wedge enclosure general dimensions are in accordance with the specifications described in the solicitation.